

# REPPERGER RESEARCH INTERN PROGRAM

RESEARCH PROJECT #: AFRL-RHW-23-08

## Agents For Co-Training & Knowledge Capture

**PROJECT DESCRIPTION:** With the near peer fight soon approaching, we need airmen that are adaptable and able to meet the challenge no matter how versatile the fight may be. Keeping this in mind, with the increasing need for expertise knowledge/skills and the limited availability of domain experts, methods for rapid effective training are in high demand. In order for the US to maintain our advantage, it is crucial we leverage AI and autonomous agent technology to capture, train, and team with our warfighters. Unfortunately, our need has exceeded our current technical capabilities, the purpose of this project is to scope and define the space within Human Machine Co-Learning. For us to advance in our efforts towards achieving true seamless transition of knowledge and skills between humans and agents, we first need to understand the problem space and identify theories, effective methods, and measures.

**ACADEMIC LEVEL:** Master's, PhD

**DISCIPLINE NEEDED:**

- Human Factors Psychology

**RESEARCH LOCATION:** Wright-Patterson Air Force Base, Dayton, Ohio

**RESEARCH MENTOR:** Jayde King, PhD

Human Factors/Research Psychology, Embry Riddle Aeronautical University, 2020



Jayde King is a Research Psychologist currently serving in the RHWL Continuous Learning Branch. She is passionate about conducting research that investigates ways to enable seamless collaboration between autonomous agents and humans. She has a strong background in Human Factors Psychology, Training Research, and Decision Support Tool development. Currently she works in a multidisciplinary team of Machine Learning Experts, Math Psychologists, and Cognitive Psychologists, together they are leveraging Wisdom Of the Crowd, Bayesian inferencing, and machine learning techniques to infer user goals, capture expertise knowledge, and develop adaptive agents for training and teaming. *Photo courtesy of the U.S. Air Force Research Laboratory.*